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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,134	07/02/2002	Raghuveer Basude	DRE-0063	8214
26259	7590	09/25/2006	EXAMINER	
LICATA & TYRRELL P.C. 66 E. MAIN STREET MARLTON, NJ 08053			EBRAHIM, NABILA G	
			ART UNIT	PAPER NUMBER
			1618	

DATE MAILED: 09/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/980,134	Applicant(s) BASUDE ET AL.	
	Examiner Nabila G. Ebrahim	Art Unit 1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

The receipt of set of claims and the Applicant remarks dated 7/3/06 is acknowledged.

Status of Claims:

1-14 are pending in the application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-7 and 10-14 rejected under 35 U.S.C. 102(b) as being anticipated by Rasor US 5,141,738 for the reasons set forth in the office action mailed 3/2/06.
2. Claims 1-7 and 9-14 rejected under 35 U.S.C. 102(b) as being anticipated by Schneider (US 5,271,928), for the reasons set forth in the office action mailed 5/13/2004.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rasor (5,141,738) or Schneider (5,271,928) in view of Unger (US 5,542,935), for the reasons set forth in the office action mailed 3/2/06.

Response to Arguments

Applicant's arguments filed 7/3/06 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 102

- Applicant asserts that Rasor relates to a solid particulate microbubble, not a gas microbubble. The asserted difference is unclear. A solid particulate microbubble (i.e., which contains gas because of the recitation of "bubble" therein, also see Rasor which specifically states that the microbubbles contain gas), is within the scope of a gas microbubble as claimed. The recitation of "gas microbubble" does not limit the claims to exclude solid microbubbles (e.g., gas encapsulated by a solid shell material).

Further, it is noted that claims 10-14 do not include the differentiating limitation asserted by applicant, as these claim only require a "surface" which would encompass the surfactant of the bubble. It is noted that "which attach to or encapsulate..." is only an

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intended function of the "surface" thus the surface in claims 10-14 encompasses any gasbubble having a hydrophobic surface. Rasor clearly discloses such gasbubbles.

- Applicant asserts that Schneider does not mention attachment of the liposomes to the gas microbubbles.

This is not found persuasive because Schneider teaches a composition wherein liposomes are attached to the surface of microbubbles to stabilize the microbubbles, as such stabilization would necessitate attachment of the microbubbles to the liposomes. This is clear by the physical characteristics of the invention, as stated in the abstract, that the microbubbles are stabilized with a surfactant (e.g., a surface active substance), which may be in the form of liposomes. Thus, clearly the liposomes are at the surface of the gasbubbles to stabilize the gasbubbles. This description can mean nothing else. It would not be possible for a liposome to stabilize a gasbubble, unless it is in contact therewith. However, since it is disclosed as a surfactant for the microbubble, it is clearly associated therewith.

Further, it is noted that claims 10-14 do not include the differentiating limitation asserted by applicant, as these claim only require a "surface" which would encompass the surfactant of the bubble. It is noted that "which attach to or encapsulate..." is only an intended function of the "surface" thus the surface in claims 10-14 encompasses any gasbubble having a hydrophobic surface. Schneider clearly discloses such gasbubbles.

Claim Rejections - 35 USC § 103:

- Applicant argues that Razor and Schneider do not disclose microbubbles which attach to a microparticle, as asserted in the arguments for the 102 rejections and Unger fails to provide such a teaching.

This is not found persuasive because, for the reasons set forth above under the 102 rejections Razor and Schneider do disclose microbubbles which attach to microparticles. Also, as set forth above claims 10-14 do not require such a limitation, as these claims are drawn to a surface comprising a hydrophobic surface and gas bubbles. The recitation of "which attach to" is an intended use of the surface, but not a specific limitation. Razor and Schneider clearly disclose a surface as claimed, i.e., hydrophobic encapsulating surface of a gasbubble.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nabila G. Ebrahim whose telephone number is 571-272-8151. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Hartley can be reached on 571-272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nabila Ebrahim

9/16/06


MICHAEL G. HARTLEY
SUPERVISORY PATENT EXAMINER